

---

# NATIONAL CENTER FOR EDUCATION STATISTICS

---

## Working Paper Series

---

The Working Paper Series was created in order to preserve the information contained in these documents and to promote the sharing of valuable work experience and knowledge. However, these documents were prepared under different formats and did not undergo vigorous NCES publication review and editing prior to their inclusion in the series.

---

# **NATIONAL CENTER FOR EDUCATION STATISTICS**

---

Working Paper Series

---

## **Report of Cognitive Research on the Public and Private School Teacher Questionnaires for the Schools and Staffing Survey 1993-94 School Year**

Working Paper No. 97-10

April 1997

Contact: Dan Kasprzyk  
Surveys and Cooperative Systems Group  
(202) 219-1588  
e-mail: dan\_kasprzyk@ed.gov

---

**U. S. Department of Education  
Office of Educational Research and Improvement**

**U.S. Department of Education**

Richard W. Riley

Secretary

**Office of Educational Research and Improvement**

Ramon C. Cortines

Acting Assistant Secretary

**National Center for Education Statistics**

Pascal D. Forgione, Jr.

Commissioner

**Surveys and Cooperative Systems Group**

Paul D. Planchon

Associate Commissioner

The National Center for Education Statistics (NCES) is the primary federal entity for collecting, analyzing, and reporting data related to education in the United States and other nations. It fulfills a congressional mandate to collect, collate, analyze, and report full and complete statistics on the condition of education in the United States; conduct and publish reports and specialized analyses of the meaning and significance of such statistics; assist state and local education agencies in improving their statistical systems; and review and report on education activities in foreign countries.

NCES activities are designed to address high priority education data needs; provide consistent, reliable, complete, and accurate indicators of education status and trends; and report timely, useful, and high quality data to the U.S. Department of Education, the Congress, the states, other education policymakers, practitioners, data users, and the general public.

We strive to make our products available in a variety of formats and in language that is appropriate to a variety of audiences. You, as our customer, are the best judge of our success in communicating information effectively. If you have any comments or suggestions about this or any other NCES product or report, we would like to hear from you. Please direct your comments to:

National Center for Education Statistics  
Office of Educational Research and Improvement  
U.S. Department of Education  
555 New Jersey Avenue, NW  
Washington, DC 20208

**Suggested Citation**

U.S. Department of Education. National Center for Education Statistics. *Report of Cognitive Research on the Public and Private School Teacher Questionnaires for the Schools and Staffing Survey 1993-94 School Year*, Working Paper No. 97-10, by Cleo R. Jenkins. Project Officer, Dan Kasprzyk. Washington, D.C.: 1997.

**April 1997**

## Foreword

Each year a large number of written documents are generated by NCES staff and individuals commissioned by NCES which provide preliminary analyses of survey results and address technical, methodological, and evaluation issues. Even though they are not formally published, these documents reflect a tremendous amount of unique expertise, knowledge, and experience.

The *Working Paper Series* was created in order to preserve the information contained in these documents and to promote the sharing of valuable work experience and knowledge. However, these documents were prepared under different formats and did not undergo vigorous NCES publication review and editing prior to their inclusion in the series. Consequently, we encourage users of the series to consult the individual authors for citations.

To receive information about submitting manuscripts or obtaining copies of the series, please contact Ruth R. Harris at (202) 219-1831 or U.S. Department of Education, Office of Educational Research and Improvement, National Center for Education Statistics, 555 New Jersey Ave., N.W., Room 400, Washington, D.C. 20208-5654.

Susan Ahmed  
Chief Mathematical Statistician  
Statistical Standards and  
Services Group

Samuel S. Peng  
Director  
Methodology, Training, and  
Service Program

*This page intentionally left blank.*

**Report of Cognitive Research on the  
Public and Private School Teacher Questionnaires  
for the  
Schools and Staffing Survey  
1993-94 School Year**

Prepared by:

Cleo R. Jenkins  
Center for Survey Methods Research  
U.S. Bureau of the Census

Prepared for:

U.S. Department of Education  
Office of Educational Research and Development  
National Center for Education Statistics

April 1997

## **Acknowledgments**

The author would like to acknowledge the contributions of Elaine Fansler and Becky Bartelt, who conducted and summarized a portion of the cognitive interviews. She would also like to thank Linda Hiner for the work she did transcribing a number of interviews.

## Table of Contents

Section	Page
Foreword . . . . .	iii
Acknowledgments . . . . .	vi
Introduction . . . . .	1
Methodology . . . . .	2
Summary and Analysis . . . . .	3
References . . . . .	31
Table 1. Number of teachers interviewed by school type and teaching experience . . . . .	35
Table 2. Percent of respondents who misexecuted the skip instruction by form, question, and various question features . . . . .	36
Table 3. The question sequence of three respondents who exhibited real difficulty understanding the skip instructions . . . . .	37
Figure 1. Example of conventional skip instruction from the 1991-92 Field Test Public School Teacher Questionnaire . . . . .	38
Figure 2. Examples of questions with a relatively complex structure from the 1993-94 Private School Teacher Questionnaire. Question 1 uses an intermediate skip instruction. Question 6 uses a modified conventional skip instruction . . . . .	39
Figure 3. Examples of questions with a relatively simple structure from the 1993-94 Private School Teacher Questionnaire. Both questions use the salient skip instruction . . . . .	40
Figure 4. An example of a question containing a combination of complex and simple question features . . . . .	41
Figure 5. An example of a question from the decennial short form that employed a skip instruction . . . . .	42



*This page intentionally left blank.*

**Report of Cognitive Research on the  
Public and Private School Teacher Questionnaires  
for the Schools and Staffing Survey 1993-94 School Year  
by Cleo R. Jenkins, Center for Survey Methods Research**

### **Introduction**

The Bureau of the Census conducts the Schools and Staffing Survey (SASS) for the National Center for Education Statistics (NCES). SASS is composed of a set of integrated self-administered surveys designed to obtain national information on all aspects of the school system. Selected public school districts are mailed self-administered questionnaires, along with both selected schools from within these districts and their administrators. Also, private schools and their administrators are sent questionnaires, as well as selected teachers from the schools in sample. The survey was most recently conducted in 1993-94, and is currently scheduled to be conducted in 1999-2000.

When the early SASS questionnaires (before the 1993-94 school year) were developed, there was little research in the survey field to effectively guide the design of self-administered questionnaires. In those days, survey research primarily focused on question wording and sequencing. As a result, early questionnaires were patterned after a questionnaire design that was originally intended for interviewers. However, over the course of time, a small body of research began to accumulate, much of it from cognitive research on the SASS questionnaires (Bates and DeMaio, 1990; Jenkins and DeMaio, 1990; Jenkins et al., 1992a and 1992b; Jenkins, 1992; Jenkins and Dillman, 1993) and some of it from research with other questionnaires (e.g., Bates and DeMaio, 1989; Gower and Dibbs, 1989; DeMaio and Jenkins, 1991). This research began to suggest that the look of a questionnaire could be every bit as important to the quantity and quality of the data collected as the wording and sequencing of the questions themselves.

The 1993-94 SASS questionnaires took into account some of this research. While both the early SASS questionnaires and the 1993-94 questionnaires were all booklets, the booklets differed in the way they made use of color. For instance, the cover pages of the early SASS booklets were colored, but the inside pages were entirely off white with black print. The answer spaces blended in with the rest of the page. In the 93-94 questionnaires, the background of each page was colored (e.g., the Private School

Teacher Questionnaire used blue and the Public School Teacher Questionnaire used green), but the answer spaces were left white. This was done to offset the answer spaces.

Another major change was in the layout of the questions and answers and the layout and coloring of the source codes. The previous questionnaires used a two-column format, with the questions in the left-hand column and the answers in the right-hand column. Also, the source codes were prominently displayed in front of the answer columns. They were printed in black (the same as the rest of the print) and outlined in a black box. The 93-94 questionnaires made use of a one-column vertical format, with the questions on top and the answer spaces vertically aligned beneath. The source codes were placed to the far left of the page, out of the respondent's view, and they were put in the same color as the background to de-emphasize them.

A third change was in the way the skip instructions were designed. The original SASS questionnaires used a conventional skip instruction, an example of which is given in Figure 1. The 1993-94 attempted some newly designed skip instructions, termed the intermediate and salient skip instruction. Shown in Figures 2 and 3, these will be discussed in greater depth below.

As noted above, the NCES has a long history of sponsoring cognitive research on the SASS questionnaires in a continuing effort to pretest and improve the questionnaires. In this latest round, NCES asked the Center for Survey Methods Research to conduct cognitive research with the 1993-94 Public and Private School Teacher Questionnaires. The goal was two-fold: to determine how effective the questionnaire's new format was and to determine how well respondents comprehended the questions.

## Methodology

Twenty cognitive interviews were conducted with teachers, distributed by school type and teaching experience (Table 1). Fifteen of the interviews were conducted either at libraries in the Washington-DC Metropolitan Area or at the Census Bureau's cognitive laboratory. The answers of teachers with alternative certificates to question 22b (type of certificate) were deemed especially problematic by NCES. As a result, five interviews were conducted at libraries in New Jersey with teachers who were identified by the Department of Education as having alternative certificates.

A combination of cognitive techniques were used--including the concurrent think-aloud technique, the use of paraphrasing, and unstructured retrospective interviewing.

Respondents were given the Teacher Questionnaire to complete. They were asked to read aloud as they read through the form and to think aloud as they answered the questions. The interviews took from ½ hour to 1 ½ hours. With the respondent's permission, the interviews were tape-recorded and either a summary or a transcription of each was written.

NCES identified questions 6, 9, 10, 11, 13, 22, 30 through 33, and 52 on the questionnaire as being the most problematic. Because pages 20 through 28 and 30 through 34 didn't contain any of these questions, these pages were stapled together and covered with a piece of paper that read "This page has been blanked out for research purposes."

## Summary and Analysis

### Formatting Issues

Color and Vertical layout. Using color to distinguish the background of the questionnaire from the answer spaces and laying out the questionnaire in a one-column format worked well. However, the lines separating the questions from one another clutter the page. We want respondents to move freely from one question to another, whereas the lines act like stop signs.

**Recommendation:** The color scheme should be maintained. However, one change that might decrease the length of the questionnaire, and thereby, increase response rates, without harming the navigational qualities of the questionnaire would be to layout the questionnaire with two vertical columns per page. A good example is provided by the National Survey of College Graduates (NSCG). Although respondents did not have problems reading across the width of the Teacher Questionnaire, we might be able to ease their task even more if we limit their eye movements to half the page, the way the NSCG does. Note that the NSCG begins with A1 in the upper left hand corner. In the Teacher Questionnaire, the first and second instructions should be combined and correctly labeled the first item on the Teacher Questionnaire. The Teacher Questionnaire is sending mixed signals to respondents. On the one hand, it implies that the beginning of the questionnaire begins at the top of the page. However, question 1 is midway down the page. All of the

information should be working in unison so that respondents are not confused about where to begin. I would suggest putting a heading in the upper left hand corner that says "Start Here." Then beneath that I would put the number 1. This way there is no confusion about where to begin. I would also recommend that the lines separating questions be removed, since they are interfering with progression through the form.

Skip Instruction Problems. Skip problems should be interpreted with care for two reasons. First, this research was conducted with a small, purposive sample of respondents, so care must be exercised in generalizing beyond this research. Secondly, many features varied uncontrollably among the questions with skip instructions (as shown in Table 2), which makes it difficult to identify with any precision or reliability the reason for the response differences. However, as noted below, respondents appeared to overlook skip instructions placed to the right of an answer category (or categories). Also, they had difficulty with some implicit skip instructions. Finally, a few respondents totally misunderstood the skip instructions.

#### *Problems with Skip Instructions Placed to Right of Answer Categories*

Shown in Figures 2 and 3 respectively, respondents overlooked the skip instructions in questions 1 (main assignment) and 6 (main assignment year before) more than in 9 (public teacher) and 15d (second major). (These are the questions with skip instructions that were asked of everyone. A few respondents did answer other questions with skip instructions, but the sample size for these questions was even smaller, making it even more difficult to draw conclusions.) Table 2 shows that about a third of the respondents (6 to 7) misexecuted the skip instruction in questions 1 and 6 (the main assignment questions) compared with a tenth or less (0 to 2) who misexecuted the instructions in questions 9 and 15d (the public school teacher and second major questions).

The wording, location, and context differed among all of these questions. However, as can be seen in Figures 2 and 3, one of the most obvious differences between the main assignment questions versus the public teacher and second major questions was that the main assignment questions were more complex. The more complex questions had a long list of response categories, whereas the simpler questions had only two: "yes" and "no." The more complex questions tended to use a bracketed arrow that came off a number of the response

categories and narrowed to the “skip” instruction or went to the next question, whereas the simpler questions tended to have a single arrow that came off each of the response options. One of the arrows went to the next question, the other to a “skip” instruction. In both cases the background of the “skip” instruction was darker than the background for the rest of the page; however, the location of the arrow and instruction differed between the two groups. In the complex questions, the skip was off to the right of the answer category (or categories). In the simple questions, it was located beneath the “no” answer category.

Question 11a (breaks in service) was an interesting hybrid because it exhibited both kinds of features. This question is shown in Figure 4. It was like the simple questions in that it had only two response categories. Also, it was like the simple questions in that only a single arrow came off of each of the answer categories. However, it was like the complex questions in that the arrow and skip instruction was off to the right of the answer category and although there were only two response options, they weren’t just “yes” and “no.” They were “none” and a write-in answer space “[ ]” for number of breaks in service. Although the breaks-in-service question had features of both the complex and simple questions, practically the same number of respondents mishandled its skip instruction as mishandled the skip instruction in the complex questions.

As just mentioned, there were two major differences between the breaks-in-service question and the other complex questions; that is, the response options differed (yes/no versus none/write-in) as well as the location of the skip instructions. Although it is impossible to disentangle these differences, we can look at other research to provide additional insight. Dillman et al. (1996) conducted cognitive interviews with a question on the decennial short form that contained a skip instruction (household elsewhere). This question is shown in Figure 5. Comparing the household-elsewhere question in Figure 5 with the breaks question in Figure 4 may provide some information about the differences in the wording of the response options. Comparing the household-elsewhere question in Figure 5 with the second-major question in Figure 3 may provide some information about the differences in the location of the skip instruction. However, it should be noted that these are not the only differences in these questions. The wording, location, and context varies among the questions, but this is true of all of the comparisons, not just these two. In addition, there are a couple of differences that are specific to these comparisons; that is, the response categories were horizontally aligned on the decennial form, whereas they were vertically aligned on the Teacher Questionnaire. In addition the graphical style

of the questionnaires differed (e.g., the background color, font size and type, etc.).

Ignoring these differences, however, and comparing the breaks question with the household elsewhere question from the decennial short form, where the difference of interest is the response categories, it can be seen in Table 2 that nearly the same percentage of respondents misexecuted the skip instruction in the household elsewhere question on the decennial short form (25%) as in the breaks question (25%). Comparing the breaks question with the second major question shows that a smaller percentage of respondents misexecuted the skip instruction in the second major question (10%). Although it is difficult to draw conclusions from this research for the reasons mentioned above (small purposive sample, uncontrolled variables, etc.), these findings do seem to suggest that placing the answer category off to the right of the answer category is the real problem here, not the difference in answer categories (yes/no versus none/breaks).

It has been suggested that overlooking skip instructions in a concurrent cognitive interview may be attributable to the concurrent interviewing method rather than the skip instruction. The argument is that the interactive nature of the concurrent interview distracts respondents. That is, the act of talking about the question and/or answer interferes with respondents' perceiving the skip instruction. Although this is a plausible competing hypothesis, a growing body of preliminary data suggest that the concurrent interview is not solely responsible for respondents overlooking skip instructions. If the interviewing method is solely responsible for this phenomenon and the placement of the skip instruction plays no role in this, then we would expect practically the same percentage of respondents to misexecute all of the skip instructions in a concurrent interview, irregardless of where the skip instruction is placed in an item. This does not appear to be the case. As pointed out above, it appears that respondents have a tendency to overlook skip instructions placed to the right of an answer category more than those placed beneath the "no" answer category.

Even more convincing evidence that the cognitive interviewing method is not responsible for respondents overlooking skip instructions comes from research with the decennial short form. In the Dillman et al. (1996) study mentioned above, half of the interviews were conducted using the concurrent method and half using the retrospective method. In a preliminary analysis (unpublished as of yet), the number of persons who overlooked the skip instruction in the two methods was similar.

Further evidence refuting the notion that the concurrent interviewing method is responsible for respondents overlooking skip instruction comes from a study by Turner et al. (1992). They concluded that respondents only see information off to the right of an answer category if it is in some way made salient. Since they conducted a mailout/mailback experiment, the cognitive interviewing method could not in any way be responsible for their conclusion.

Jenkins and Ciochetto (1992) concluded that respondents overlook skip instructions that are placed to the right of an answer category because of the convoluted reading structures these instructions present. The researchers assert that respondents read the answer category, move to the left to mark the answer box, and that their natural inclinations at this point are to go to the next question rather than back to the right to read the skip instruction. Given this information, Jenkins and Dillman (1993) discussed what they foresaw as the advantages and disadvantages of three skip instructions: the salient skip instruction, the intermediate skip instruction, and the natural reading sequence skip instruction.

- In the salient skip instruction, the instructional arrows came off the left-hand side of the answer boxes. One arrow pointed to the next question, while the other pointed to the skip instruction. In addition, the skip instruction was placed beneath the answer category (rather than to the right of it) in an effort to make the skip instruction more visible to respondents. This was the skip instruction used in questions 9 and 15d of the Teacher Questionnaire.
- The intermediate skip instruction differs from the salient skip in that the one of the arrows and its associated skip instruction was placed to the right of the answer category. This skip instruction was used in question 1 of the Teacher Questionnaire.
- Finally, Zukerberg and Hess (1996) conducted cognitive interviews with the natural reading sequence skip instruction. In this format, the information was presented to respondents in the sequence they seemed to need it: first, the answer category, then the answer box, and finally, the arrow and instruction. The researchers reported that a little over half (11 out of 20) of the respondents misexecuted at least one of the natural reading sequence skip instructions.



Jenkins and Dillman (1993) discussed what they saw as the advantages and disadvantages of each of these skip instructions, but theirs was a hypothetical discussion unsubstantiated by much experimental evidence. Although we still lack additional experimental evidence on which to base conclusions, it would seem that taking together all of the above preliminary evidence, the salient skip instruction is the best skip instruction to use when there are only two response categories. The question remains whether or not the salient skip instruction would work better, equally as well, or worse than the intermediate skip instruction when there are more than two response categories. Since no such skip instruction has been pretested, it is impossible to say at this point. However, based on the above discussion, it certainly appears worth exploring further.

**Recommendation:** At this point in time, the salient skip instruction looks the most promising in the case of a simple two-response category question. Also, it seems worth exploring its use in the case of multiple response options. Beyond that, however, experimental research is needed to further elucidate this problem.

The earlier versions of the Teacher Questionnaire did not attempt to highlight the skip instructions. They just took it for granted that respondents would perceive the skip instructions. We have since learned that this is not necessarily the case. As a result, the 1993-94 questionnaire tried to highlight them by putting them in a deeper background than the rest of the questionnaire. However, since then, we have come to learn that black print is more visible against a lighter background than a darker background. Given that respondents are still having problems perceiving the skip instructions, we should better highlight them by putting them in a white background rather than the dark background they are now in.

### *Problems with Implicit Skip Instructions*

Although all of the respondents executed the explicit skip instruction in Q9a correctly, a number of respondents had difficulty with the implicit instructions that followed in Q9b, and Q9c, and in Q10a and Q10b. After marking "yes" in

Q9a, and answering Q9b, they weren't sure if they were supposed to go to Q9c. Coupled with the fact that they hadn't taught part-time, a number of respondents decided to leave Q9c blank rather than mark the "none" box. In addition, one respondent thought that she was only supposed to answer Q10 if she responded "no" to Q9a. So, she left Q10a and Q10b blank and went to the next page.

**Recommendation:** Q9a should be broken into two separate questions. Q9a would become: Have you ever worked as a FULL-TIME elementary or secondary teacher in a PUBLIC school? Q9b would still ask for the number of years. Q10a would become: Have you ever worked as a PART-TIME elementary or secondary teacher in a PUBLIC school? Q10b would ask for the number of years. The skip instruction would say to go to Q11a.

### *Serious Skip Instruction Problems*

Three respondents had very serious problems with the skip instructions. Two of these respondents thought that they were supposed to skip to the specified question in the skip instruction, but then return from whence they came. As a result, they found themselves in recursive loops and answered or attempted to answer many, if not all, of the questions, even when they weren't supposed to. For example, Table 3 shows that Respondents 13 and 19 answered Q1a, then properly skipped to Q5. However, rather than continuing on to Q6 at this point, they went backwards. One of the respondents went to Q1b then to Q2, the other went directly to Q2. However, Q2 directed them to go to Q5. So, they went to Q5, recognized they had already completed it, and once again looped backwards. One respondent went to Q3, the other to Q4. Eventually, they worked their way through all of the questions up to 5, at which time, they finally felt comfortable going on to Q6.

The troubling aspect of this behavior is that it didn't occur because respondents were overlooking the skip instructions, but because they had read them and misunderstood them. This seems to be a special case of the above category, in that respondents are getting to Q5 and looping backwards because Q5's instruction to go forward to Q6 is implied rather than explicit.

**Recommendation:** These questionnaires would make excellent candidates for computer self-administered questionnaires because the computer will be able to control respondents' paths more effectively than the respondents can. If the questionnaires remain paper, however, it would be advantageous to reduce the number of questions with skip instructions in the Teacher Questionnaires. Also, every question needs to have an explicit instruction telling respondents to move ahead. So, for instance, an arrow would come off the left hand side of the answer box in Q5 and go to Q6.

### Item by Item Review of Problematic Questions

**6a. What was your MAIN activity the year before you began teaching at the elementary or secondary level?**

*Mark (X) only one box.*

The sixth answer category 'Working in a position in the field of education' gave respondents the most trouble. One respondent was a tutor. He questioned whether this should be reported in (6) Working in a position in the field of education, but not as a teacher or in (7) Working in an occupation outside the field of education. He couldn't decide if tutor was equivalent to teacher. He noticed, however, that whatever he decided would effect what questions he answered next, so he looked to see if the future questions would provide him with some guidance. He decided, although he wasn't satisfied with this, to mark (6) Working in a position in the field of education, but not as a teacher in Q6a and (6) Instructional aide in Q7. In addition, another respondent had difficulty determining how she should report her position as a teacher's aide. She wasn't certain if it should be reported in (6) Working in a position in the field of education, but not as a teacher. She decided it should be.

**Recommendation:** Make it clear how a tutor should be reported. Also, combine questions 6 and 7. This will eliminate the need for respondents to interpret the sixth category. It'll also eliminate the need for an additional question

and skip instructions, which only allows more room for error.

- |            |  |
|------------|--|
| <b>9a.</b> | <b>(Private School Questionnaire) Have you ever worked as an elementary or secondary teacher in a PUBLIC SCHOOL?</b> |
| <b>9a.</b> | <b>(Public School Questionnaire) Have you ever worked as an elementary or secondary teacher in a PRIVATE SCHOOL?</b> |

A number of respondents wondered if this question was referring to part-time, full-time, or both. For instance, one private school teacher had substitute taught at a public school, which she considered part-time teaching. She read aloud Q9a. Since she couldn't tell if it referred only to full-time teaching, she went on to part b to see if it would provide her with guidance. Because part b referred only to full-time teaching, the respondent decided that part a was only referring to full-time teaching too. Therefore, the respondent erroneously marked "no" in response to Q9a, left b blank, and went on to answer part c correctly. This resulted, however, in inconsistent answers between the parts of this item.

One respondent expressed difficulty with the word "work." The respondent had observed as part of a college course and wondered if that constituted "worked." He decided it didn't because he hadn't been paid.

Recommendation: As noted earlier, break Q9a into two separate questions.

**10b. (Public School Teacher Questionnaire) How many years have you worked as a PART-TIME elementary or secondary teacher in PUBLIC schools?**

*Include the current school year if you are a full-time teacher this year.*

*Record whole years, not fractions or months. If less than 4 months, mark "None."*

**10b. (Private School Teacher Questionnaire) How many years have you worked as a PART-TIME elementary or secondary teacher in PRIVATE schools?**

*Include the current school year if you are a full-time teacher this year.*

*Record whole years, not fractions or months. If less than 4 months, mark "None."*

A couple of respondents overlooked the "none" box altogether. One of these wrote a "0" in the write-in answer space, which didn't result in a loss of data, but another left the item blank, which did result in a loss. Another respondent, however, did the opposite: she wrote the number of years she had been teaching in the "none" box rather than the "write-in" box.

One respondent worked in two schools and wondered if he was supposed to answer question 10 in terms of both schools. He decided to report the eight years he had worked full-time at "this school" in part a, and the twelve years he had worked part-time as a tutor in a parochial school in part b. Notice that for this question the respondent equated "tutoring" with "teaching."

Recommendation: Respondents who wrote in "0" rather than marking the "None" box were looking for a "0" so the word "None" did not register. Therefore, substitute a "0" for the word "none."

**13. What was your MAIN activity the year before you began teaching in THIS school?**

This question gave respondents the most difficulty. Visually, this item clearly demonstrates the value of the Gestalt principles. This item asks respondents what their main activity was the year before they began teaching at their current school.

It also provides them with an instruction about what to do if they left the school and then returned. If their main activity is any of the first four answers, the bracketed skip instruction off to the right instructs respondents to go to item 15a, and if it's any of the next 10 answers, the bracket along with the arrow off to the left directs them to go to item 14. However, the large white answer box between the fourth and fifth answer categories, along with the way the brackets divide up the first through fourth answer categories from the fifth through fourteenth answer categories made this item look like two separate questions to respondents, as will be demonstrated shortly in the transcript below. Notice that the respondent answered this question, and in fact he answered it quickly, but he continued to struggle with it after he answered it. He explained that we should have put a dotted line after the big white answer box, and that we should have put 13a off to the left. That's because at this point he thinks that this item is two different questions, but then he happened to notice that the keycodes for the answer categories are part of a continuing series and this clued him into the fact that this may be one question after all.

Alright then it goes on to say, what was your main activity the year before you began teaching at this school, meaning, my current school \_\_\_\_\_. Okay I was, okay if you left it before, if you left and then returned, it says report the main activity the year before you most recently returned to this school. Okay, I haven't left it. So I don't worry about that. So I just cross it out. I see there's only one box. Okay, I was teaching in another elementary or secondary school in this school system. Right. So, then, then I mark it. Then I say different school system. No. Then I just read through it to make sure. Nope. Teaching in a private school. So it said mark only one box, and that one fit, so that was good.

Okay, now I'd have to go, since I've answered this question, that's nicely delineated there. It might be nice to have a dotted line maybe. Or put 13a here, or something like that. It's too complicated. It's getting...for my old mind, it's getting too complicated. Just have something there.

Alright, go to, because it looks like I should be going. 'Cause it says mark only one box, then I check.

Then I have to go back and check and see if that 4, if there's a 1, 2, 3, 4. Because I just assumed, since I wrote this in, this is one, two, three, four. Now I see it's all part of the same question.

So what impeded my understanding was that big box there, the big box. Visually and spatially it uhh...visually and spatially, maybe it should be over here, and maybe go to item 15 should be over here. But it, it... Anyway it confused me. Alright, so I don't have to worry about...wait a minute I do have to worry about question 14, no, I don't. Go to item 15a, page 11. At least I read question 14, and realized then I had a bracket out here, so that helped. So I just go on. [Interview 9]

Technically question 13 is not the same as question 6 because 13 asks respondents what their main activity was before they began teaching in this school, whereas 6 asks what their main activity was before they began teaching ever. However, for new teachers, questions 13 and 6 were one and the same (except that the answer categories for the two differed slightly). As a result, many respondents answered 13 differently than they had 6, even though they shouldn't have.

To understand why this occurred, we need to consider the assumptions that govern the conduct of conversation in everyday life. One such assumption is that speakers are supposed to provide new information to recipients, rather than reiterate information that they've already provided (Schwarz, 1993). It is only natural, therefore, that respondents thought they were supposed to provide "additional" information in question 13. An example of this follows.

The respondent read Q6, "What was your main activity the year before you began teaching at this." The respondent reread "My main activity." She continued to read the first two answer choices, and then went back to read the instruction, "Mark only one." She read the list of answer choices, stating that she was not a housekeeper, but did however, work as a substitute teacher. She continued to read the answer categories, pausing on the answer "working in a position in the field of education." She then stated, "not as a teacher, no." When the respondent read the answer,

"working in an occupation outside the field of education," she said that she could have two possible answer choices. So I asked what her two answer choices were, and she said that she was a substitute teacher, but her primary job was in advertising. She wondered how she would answer this question. She decided that the question wanted to know about her history. She then decided to answer "working in an occupation outside the field of education". I asked her why she chose that answer, and she responded that she thought the question wanted to know where she came from as a teacher. All the other answer categories dealt with being involved in school and she was not entirely involved with the school.

The respondent read Q13, "What was your main activity the year before you began", and thought this question was already asked. [She was referring to Q6.] She reread the phrase, "main activity" and stated that this was where she was going to throw the questionnaire a curve, and answered substitute teaching. She read the first answer choice aloud, but glanced through the other answer choices without reading them aloud. She decided that she would answer "teaching in another elementary or secondary school in this school system" because she had a double background and wanted to let the questionnaire know that she did. [I believe she was referring to substitute teaching and working in advertising.] I asked her to explain more. She explained that substituting became more important because she was making money. If she was offered a substitute job, she always took it, and did not do the advertising. [--Interview 20]

As mentioned earlier, the answer categories in this question differed from the answer categories in Q6. The first four were unique to this question and the remaining answer categories, which were the same as the ones in Q6, were arranged differently than in Q6. This threw new teachers off. They were expecting the answer categories to be the same in Q13 as in Q6, since they perceived these as the same questions.



Recommendation: Do not ask this question of respondents for whom this is the same question as question 6. Also, move the white answer box to the right of the answer category in 4 because it is interfering with respondents' perceiving this as one question.

**14. In addition to the above activity, did you also TEACH in any of grades K through 12?**

*Do not include student teaching or short-term substitute teaching.*

One respondent demonstrated just how interesting definitions can be. He said that although he substitute taught over a long period of time, technically it was considered short term teaching. With probing, he explained that short-term substitute teaching was considered less than 20 consecutive days in the same classroom. He explained that his long-term stint was interrupted by the fact that the regular classroom teacher came back for a day. Therefore, what might be considered a long-term substitute teaching job by some standards might become a short-term one according to the school's definition. He marked "no," which I assume was the correct answer here.

Although he answered Q14 correctly, he hadn't answered Q13 correctly. There he had marked 3 categories rather than 1. The three categories were: (5) Working as a substitute teacher, (8) Working in a position in the field of education, but not as a teacher, and (11) Student at a college or university. However, we learned in Q6 that he should have marked (11) Student at a college or university as his main activity the year before he began teaching, which was also the year before he began teaching in this school. Hopefully, the fact that he marked three categories in Q13 will be corrected when he is no longer asked this question, as explained above.

However, his response brings to light two additional problems. What if his main assignment had been short-term substitute teaching. Was he supposed to mark the (5) Working as a substitute teacher. It is not clear if (5) is referring to both short- and long-term substitute teaching. He interpreted it as referring to short-term substitute teaching because he hadn't been told anything different up till this point. Also, let's assume his answer to Q13 was (5) Working as a substitute teacher. Then it doesn't make sense to ask Q14. This respondent answered Q14 in light of

the substitute teaching job he reported in Q13, not “in addition to the above assignment” as Q14 directs.

Another respondent had a similar problem. She too ignored the reference to “in addition to the above activity” and answered Q14 in light of the activity. Also, she thought the question was asking her if she taught in a K through 12 school, and since she had taught in a K through 8 school, she responded “no” to this question. Her answer ended up being correct, but for the wrong reasons. Her answer was correct because she hadn’t taught “in addition to the above activity.”

Another respondent temporarily forgot about her other part-time teaching assignment for two reasons: one, because it had occurred 8 years ago and two, because it wasn’t her main activity at the time.

**Recommendation:** Some of the problems with this question should be taken care of by not asking new teachers question 13. In addition, reword category (5) so that respondents know if its referring to short-term substitutes, long-term, or both. Finally, exclude the fifth category from the skip bracket on the left of Q13 going to Q14.

**15b. What was your major field of study?**

*Record the two-digit field code from the list on page 10 and the field name.*

There was a little difficulty with the list of field codes. For instance, one respondent thought that she was supposed to choose “General Education” until she realized that there were more specific fields and codes underneath this heading from which to choose. A French teacher’s eye went immediately to “24--Foreign languages education.” No sooner had he written in “24” than he realized that wasn’t correct because he hadn’t gotten a degree in foreign language education, he had gotten it in “French.” So he correctly changed his answer from “24” to “51.” And another thought that the list was “...two different lists instead of one long list.” She thought one side was the code and the other side looked like the main field of study. Eventually she figured it out.

Recommendation: Visually highlight the headings and differentiate the columns, so that it becomes more evident that the one column is dealing with education fields and the other with general fields.

**15e. What was your second major field of study?**

*Record the two-digit field code from the list on page 10 and the field name.*

Quite a few respondents thought this question was asking if they had a minor at first. Some respondents looked ahead and saw that the next question (Q15f) actually asked about their minor. Then they realized that this question was asking them if they had a second major. Others actually answered this question in terms of their minor and had to erase it when they got to Q15f.

Recommendation: Capitalize the words 'SECOND MAJOR' in Q15d and "MINOR" in Q15f.

**16a. What is the name of the college or university where you earned your bachelor's degree?**

The answer format of this question violated respondents' expectations. Starting at the top of page 11 in Q15b, the questionnaire asks respondents to record the two-digit field code from the list on page 10 in white segmented boxes that are placed to the left of a long write-in answer space. What happens in question 16 is that after having asked respondents to write in field codes in questions 15b, e, and g, the questionnaire turns around and provides the same white write-in answer boxes for another purpose. Instead of being provided for respondents to write in, they are being provided for office personnel to write in.

Top-down processing enables us to quickly perceive our world by placing what are well-founded expectations upon it from past experiences. However, a break down is likely to occur when the world deviates from our expectations, as it does here. According to the caption in 16a, the segmented boxes on the left are for office use only.

Recommendation: One suggestion is to remove these boxes altogether. Couldn't coders be instructed to code these responses irregardless of whether there are boxes? Otherwise, move these boxes to the right hand side of the write-in answer space rather than the left. Also shade these boxes to give respondents the

impression that they are not supposed to pay attention to them (because they have learned to respond in white answer boxes, not shaded ones).

**21a. What is your MAIN teaching assignment at this school, that is, the field in which you teach the most classes?**

*Record the two-digit code from the list above and the field name. If your teaching schedule is divided equally between the two fields, record either field as your main assignment, mark (X) in box 1, and report the other field in item 21c.*

Elementary teachers were confused by this question, especially when they neither read the instruction nor looked at the list of field codes. Although they primarily think of themselves as teaching all subjects equally, the phrase “teach the most classes” made them question whether they were supposed to single out reading and math here. “The most classes” seemed to be interpreted as meaning “the most important subjects.” After considering whether or not to report reading or math as her main teaching assignment, one respondent decided instead to write in “Classroom Teacher (elem.)” in the white answer space. However, because she neither read the instruction nor the list, she didn’t transpose a code from the list above. A different teacher figured out the correct meaning of this question once he saw the instruction which said, “if your teaching schedule is equally divided” and the code for “general elementary” from the list above. He then correctly wrote “03--General elementary” in the white answer space. A third respondent said she would have been better off if we had told her on the previous page to turn the page and start at the top. Then, she said, she would have understood sooner that these questions applied to the field codes above.

However, for some reason there were also quite a few different kinds of errors made with this question. For instance, one respondent was confused about whether this question referred to her current posting. Another had difficulty understanding what the “If your teaching schedule is equally divided” instruction meant at first. Another respondent thought he had already been asked this question before. He must have been thinking of the question that asked him what his major field of study was, because his answer to both of these questions was the same: 51 French. It is also interesting to note that one of the elementary teachers mentioned above found “mathematics” in the teaching assignment field code list, but not “reading.” However, a mathematics teacher couldn’t find the field code for math.

He thought that math would come under “Science,” but it comes under “Special Areas.”

**Recommendation:** Combine math with science and change the heading to “Math and Science.” Do not rely solely on the instruction provided below the question for respondents to refer back to the list because some respondents overlook it. Reword the question so respondents know to refer to the list provided: “From the list above, record the 2-digit field code to indicate your MAIN teaching assignment at this school, that is, the field in which you teach the most classes.” Right now the list looks visually disconnected from question 21a, especially because of the line between the two. Visually connect the two by removing the line.

**22b. What type of certificate do you hold in this field?**

The problem with this question was that respondents who had alternative certificates and who were supposed to mark the fourth answer category “The certificate offered in your state to persons who HAVE COMPLETED what the state calls an ‘alternative certification program’.” didn’t necessarily mark this category. Three of the five respondents marked the “regular or standard state certification” instead. One of these didn’t see the alternative certification category. This respondent engaged in a behavior known as satisficing (Krosnick, 1991). She came to a category that described her certificate well enough, chose that category, and moved on.

The rest, however, purposely chose the “regular” category over the “alternative” category. Although they had received their certification through an alternate route, they made it clear that once they received the certificate, it was the same as any other teachers’. There was a reluctance on their parts to mark the fourth category for fear that made their certificate look different, or perhaps even inferior to, the regular certification. When respondents talked about this program, they didn’t call it “alternative certification program,” they called it “alternate route program.”

**Recommendation:** One option is to reword the fourth category to “Regular or standard state certificate received through the ‘alternate route

program’.” However, this is probably not the best solution, since it will probably not correct mistakes made by respondents who engage in satisficing. Another solution is to create a skip instruction here, such that respondents who mark the third category are then asked a follow-up question about the way in which the certificate was received. A third solution, and the one I recommend, is that the questionnaire not collect data about the alternate route program in this question. The program pertains to the teacher’s training, not certificate. A new question should be created to obtain this information.

**23a. Do you have a teaching certificate in this state in your OTHER teaching assignment field at this school?**

When asked in Q21b if they taught classes in other fields at this school, most respondents marked “no,” yet several questions later they were asked if they have a teaching certificate in their other teaching assignment field. Not surprisingly, this question confused respondents because they seldom ever had an OTHER teaching assignment field in the school, but the question is worded as though they do. It doesn’t say “Do you have an OTHER teaching assignment field? Yes/No.” It says “Do you have a teaching certificate in your OTHER teaching assignment field?” Before reading the answer categories, and sometimes even after reading the answer categories, respondents thought they had overlooked or misunderstood something. Most respondents eventually figured it out, but we should not burden them this way.

**Recommendation:** Reword and rearrange questions 21 through 23 so they flow more logically.

21. From the list above, record the 2-digit field code to indicate your MAIN teaching assignment at this school, that is, the field in which you teach the most classes.

22. Do you have a teaching certificate in this state in your MAIN teaching assignment field?
- b. What type of certificate do you hold in this field?
- 23a. Do teach classes in other fields at this school?
- b. From the list above, record the 2-digit code to indicate the field in which you teach the SECOND most classes?
- c. Do you have a teaching certificate in this state in your SECOND teaching assignment field?
- d. What type of certificate do you hold in this field?

**30. Since the end of last school year, in which of these activities related to teaching have you participated?**

*Mark (X) all that apply.*

A couple of respondents weren't certain if the word "participated" in this question was supposed to include teaching. For instance, one teacher taught a workshop and wondered if she should mark the second category, "SCHOOL sponsored workshops or in-service programs." Another taught an adult education course, and wondered if she should mark "University extension or adult education courses." Both decided they should.

Recommendation: Reword the question as "Since the end of last school year, in which of these activities have you participated or taught."

☐ SCHOOL DISTRICT sponsored workshops or in-service programs (Public School Teacher Questionnaire)

☐ SCHOOL sponsored workshops or in-service programs

A couple of public school teachers had difficulty because they couldn't decide how to report state-affiliated activities. For instance, one respondent talked about taking courses which were for, as she put it, MSD credit. MSD stood for Maryland State Department. She decided that the MSD courses probably fell under the school district sponsored workshops because the school district-sponsored them. Another respondent had taken a whole language workshop that she said was sponsored by the state. She looked for an answer category, but didn't find one, so she didn't mark any. Rather than seeing these answer categories as mutually exclusive, this respondent viewed the school sponsored category as a subset of the school district sponsored category.

One public school teacher had difficulty distinguishing between the first two categories on the Public School Teacher Questionnaire: the "SCHOOL DISTRICT sponsored workshop" versus the "SCHOOL sponsored workshop." She marked both, saying "They are pretty much the same thing, so I would say 'yes' because the school is controlled by the school district."

Recommendation: Including a category for state-sponsored workshops will help respondents who were looking for such a category. Perhaps it should be included with the School-district sponsored category as "SCHOOL DISTRICT or STATE sponsored workshops or in-service programs. However, this solution will not help respondents who have difficulty distinguishing between the first two answer categories. It could even aggravate that problem.

☐ (Private School Teacher Questionnaire) Workshops or in-service programs sponsored by an organization with which this school is affiliated

☐ SCHOOL sponsored workshops or in-service programs

One respondent had attended a workshop at Catholic University, which she reported under "SCHOOL sponsored workshop." She wasn't sure about this



though. She looked at the next category (university extension or adult education courses) and wondered if it belonged there. She decided to keep it in the school sponsored workshop category, but she wondered about this, even as she was about to go on to question 31.

#### ☐ University extension or adult education courses

Teachers who had received their teaching certificates through the alternative certification program had difficulty determining if they should mark this category or not. On the one hand, they were “university extension” courses. On the other hand, they were also in a program. As often happens in cases like this, one respondent who had recently completed courses towards his alternative certificate marked this category and another didn’t.

Recommendation: Reword this category to “University extension and adult education courses, including alternative certification courses,” if it is supposed to include these courses or to “University extension and adult education courses, excluding alternative certification courses,” if it is not supposed to include these courses.

#### ☐ Professional growth activities sponsored by professional associations

Some respondents didn’t know what “professional growth activities sponsored by professional associations” were. There were problems with understanding what a “professional growth activity” was. For instance, one respondent when she came across this category, exclaimed, “I don’t have any idea what they are talking about when they say “professional growth activity. What’s a growth activity?”. The respondent couldn’t even figure out what this was by a process of elimination because she said that so many other things were listed here that she hadn’t the faintest idea what a growth activity was.

There were also problems understanding what “professional association” meant. One respondent said that a professional association to him would be the doctor’s association or a lawyer’s association or an association of referees. In other words, he said, an association of people OTHER than educators.

He wasn’t alone in wondering what constituted a professional association, for another respondent questioned if she should count her teacher’s convention here.

She decided to, demonstrating once again that when respondents are confused over something, they often draw opposite conclusions. Also, it is interesting to note that she also reported having attended the teacher's convention earlier under the first category on the Private Teacher Questionnaire, "Workshops or in-service programs sponsored by an organization with which this school is affiliated." If the distinction between these two rests with the distinction between "workshops or in-service programs" in the one category and "professional growth activities" in the other, this distinction was missed.

One respondent defined this category as "activities that the Department of Education would present."

Recommendation: Provide concrete examples from which respondents can draw an understanding of what this category is supposed to include, for example, "Professional activities sponsored by professional associations, such as conferences, (and a list of more examples), etc." Also, delete the word "growth," since respondents do not understand it.

☐ Other curriculum committee

☐ Committee on selecting textbooks or materials

One respondent reported the same art curriculum under both the "other curriculum committee" and the "committee on selecting textbooks or materials." It is not clear if this was appropriate or not. What is the distinction between these two categories?

A private school respondent questioned the "committee on selecting textbooks" category. Since theirs was a small school, the respondent had just met with the principal to select a new science curriculum. She decided that this wasn't technically a committee, so she left this answer category blank. It is not clear if she should have or not.

Recommendation: Further define these categories.

### Additional categories

When respondents were done answering this question, we asked them if there were any categories they thought should be included here that weren't. One respondent suggested that "activities in the school with children" be included. She pointed out that volunteering to conduct extra activities in the school with the children is important.

**31. Since the end of last school year, have you participated in any in-service or professional development programs which focused on the following topics?**

Respondents had trouble distinguishing between the categories in this item. For example, one respondent said, "I'd say b, methods of teaching in question b, was kind of, of, a, a heading for d [Student assessment] and e [Cooperative learning] 'cause I, I included both of those, um, under that."

Several respondents had problems distinguishing (b) Methods of teaching your subject field from (a) Uses of educational technology for instruction. One respondent questioned whether she should report the computer in-service she had reported in (a) in (b) as well. After reading the question several times, she decided that category (a) was for her "benefit only," whereas (b) benefitted students directly. She answered this question correctly, but for the wrong reason. Given that she was a special education teacher, I'm assuming she shouldn't have even considered reporting the computer program in (b), since it wasn't her subject field.

When it came to (b) Methods of teaching your subject field, a couple of respondents included meetings they had attended in their answer here. It wasn't clear if meetings were supposed to be included here or not.

There was also trouble understanding the definition for (c) In-depth study in your subject field. One respondent interpreted this category as meaning an in-depth analysis or critique of one's subject field or in his words "deep kind of picking apart at, uh, you know, how well it's working." He said that there had been a "general study, just kind of touching of the water," but since the category specified "in-depth," he didn't think the general study qualified. Another respondent had trouble because her subject field was elementary education, and

at first, she included the same workshops that she had reported in both (a) and (b) in (c). She said, "The more I learn about how to teach, the better I am at my field because teaching is my field." However as she thought more about this, she came to understand that (c) was actually referring to content. She said, "...I guess maybe this is meaning content, as, have I learned about math? Like, how to do math, more than how to teach math." However, she didn't change her answer. She reported the same "more than 32 hours" in (c) as in (b). She said, "Even if they want to say these 32 hours can't be inclusive with these 32 hours, I would have 64 hours to cover both of these."

One respondent demonstrated that scales are seen as meaningful by respondents. As a follow up to whether or not they have participated in any of the listed programs, respondents are asked how many hours the program lasted and they are provided with three answer categories in which to respond: "8 hours or less," "9-32 hours," and "More than 32 hours." After looking these categories over, the respondent said, "Obviously 32 is the best answer, and if you don't have 32 hours, you're not competent in that."

Generally, respondents didn't count the actual number of hours they spent participating in in-service or professional development programs; instead they tended to use words like 'say' and 'probably' to indicate that they weren't calculating an exact number, but estimating instead. They said things like, "...I'll say '8 or less' because it's informal; ...so that would be 8 hours or less. Probably 2 hours; I'm going to say 9-32 hours; yes, probably 9 to 32." However, this answering strategy was probably adequate given that the relatively large ranges provided.

A couple of respondents were confused by the wording of the follow-up question. The reference to 'the program' in the follow up question confused them. One respondent said, "I read that question wrong because it says 'How many hours did the program last?'. They are talking about one particular in-service. I am trying to think here, one in-service, or are they talking about the entire program on this particular topic ...because we have had a number of in-service programs." Another respondent said, "I kind of took this at first as just focusing on in-service day...or just days...and not the program, and the program you know is a whole year kind of ..."

**Recommendation:** Clarify the distinction between the categories and whether these categories are supposed to be mutually exclusive or

not. Also, remove the confusing reference to 'the programs' in the follow-up question: How many hours did you receive?

NOTE: Answer this item only if you answered "Yes" to one or more of the training topics listed in item 31 on page 18.

32. **Please give your opinion about the impact of the professional development programs, described in item 31, in which you have participated since last school year.**

A few respondents expressed difficulty answering this question. Having participated in a number of different in-service or development programs led to their wanting to answer the categories differently depending on the particular in-service or program. Instead they needed to "average" the responses, which they found difficult to do.

- b. Changed my views on teaching
- c. Caused me to change my teaching practices

These categories confused many respondents. For instance, one teacher used to think that children should sit in their seats and be quiet, now she lets them cooperatively learn and be talkative. She wondered if that would count as having changed her views on teaching or as having changed her teaching practices?

In addition, a couple of respondents had interesting interpretations of the category "changed my views on teaching." One respondent thought that if she said that the experience had caused her to change her views on teaching, that she was in effect saying that her previous view had been bad or wrong. Naturally, she was reluctant to admit to this. Another voiced the opinion that his view of teaching was always in effect changing, which to him meant that the programs, therefore, weren't ultimately responsible.

**Recommendation:** The distinction between (b) and (c) needs to be made clear. But more importantly, some real thought needs to go into determining what value these data provide when respondents "average" their responses over more than one program. It appears that the only way to get really meaningful data would be to ask this question with regard to each and every

program respondents have taken, which would obviously be an overwhelming request.

**33. What types of support have you received during the current school year for in-service education or professional development in your MAIN teaching assignment field?**

*Mark (X) all that apply.*

For the most part, respondents did not speak in terms of the current school year. One respondent even went so far as to answer this question in terms of the future, e.g., “If there were classes that would require a fee on the workshop days, I think that would be covered.” Also, one respondent was confused by the use of the word “support” in this question. She did not understand what kind of support the question was referring to until she read through the answer categories.

Recommendation: Reword the question so that it highlights the reference period “During the current school year, what types of support have you received for in-service education or professional development in your MAIN teaching assignment field?”

☐ Released time from teaching

One respondent was not sure what “released” time from teaching was until after she read the definition for “scheduled” time. Then she was able to derive a working definition for “released” time.

Recommendation: Include a parathetical definition to help respondents distinguish “released” from “scheduled” time.

☐ Scheduled time

One respondent decided that “scheduled time” included the teacher planning period. She explained that she considered developing a curriculum or a lesson during the teacher planning period as a form of professional development. It is not clear if this is true or not.

Recommendation: Clarify this category.

### ☐ Tuition and/or fees

One respondent had received a grant and wasn't sure if that should be considered support for tuition and/or fees or not. Technically, she didn't think it should be considered tuition or fees, which is why she immediately responded "no" after reading this answer category. Upon reflection, however, she decided that the grant did represent "support," so she decided to mark this category.

### ☐ Professional Growth Credits

A number of respondents didn't know what this category meant. Generally, they didn't mark this category, since they didn't know what it was. One respondent, however, interpreted the word "credit" to mean Maryland State Department Education credit. On the one hand she said that this meant, could she apply the course that she took for her recertification? On the other, it meant did her principal give her credit for professionally developing. She marked this category, saying that he did.

Recommendation: Clarify this category.

## **SECTION C--TEACHER TRAINING**

There was at least one respondent who objected to the organization of the teacher training section. She was an elementary teacher who taught mainly science and math. However, most of her science and math experience was gained from workshops and in-service educational experiences, not from formal classroom courses. Because she didn't realize that eventually she was going to be asked about her professional development experiences, she became aggravated at having to report that she was a science teacher in question 29 after having reported she had not taken any science courses in question 28. After finishing question 29, she said, "That's all they wanted to know, that I do teach it, see that upsets me because here [she is referring to question 28], I'm saying I have no background in math or science, and all they ask is do you teach it. Yes. And that makes me think that she's not accredited. She's not well versed in math and science knowledge, yet she teaches it. 'Grunts' to her. It ticks me off." However, she calmed down once she was able to report her training in questions 30 and 31.

Recommendation: Because everyone's most recent training experience, even that of new teachers, is the in-services and workshops they have

just completed, perhaps the questionnaire should ask questions 30-32 before 15-29. At the very least, questions 30-32 should be asked before 28 and 29.

**51a. In what year will you be ELIGIBLE to retire from teaching?**

Many young teachers did not know the rules governing retirement eligibility. Retirement for them was so far in the future that they didn't know much about it. For instance, one respondent said that she didn't know if she was eligible to retire after 20 or 25 years of service, but she was sure she could after 30 years. Since she wasn't sure one way or the other, she decided to hedge her bets by using the 25-year figure. Another respondent said that she could retire after 30 years of service. Two more respondents "guessed" it was 30. Another didn't have any idea, so she didn't answer this question at all. Another said that this was a silly question because she didn't even want to think about retiring. She didn't know how old you had to be in order to retire, but she assumed that she would be eligible to retire when she was around 55 (years old). A couple of respondents said that there wasn't a mandatory age for retirement, like there had been in the past. They interpreted this question to be asking them when they could draw social security. One respondent even asked permission to write that date in.

Recommendation: What are the rules governing retirement eligibility? Providing them to respondents would be helpful. However, an even better idea would be to not ask this question of new teachers.

#### References

- Bates, N. and DeMaio, T. 1989. "Using Cognitive Research Methods to Improve the Design of the Decennial Census Form." *Proceedings of the Bureau of the Census Fifth Annual Research Conference*, March 1989, pp. 267-290.
- Bates, N. and DeMaio, T. 1990. "Report on Cognitive Research on the Public and Private School Teacher Questionnaires for the Schools and Staffing Survey (SASS-4A and SASS 4B)." Internal Census Bureau Memorandum, July 1990.
- DeMaio, T. and Jenkins, C. 1991. "Questionnaire Research in the Census of Construction Industries." *Proceedings of the Section on Survey Methods Research*, American Statistical Association, August 1991.



Dillman, D.A., Jenkins, C., Martin, B. and DeMaio, T. 1996. "Cognitive and Motivational Properties of Three Proposed Decennial Census Forms," Report Prepared for the Bureau of the Census, Washington DC., Census Bureau Memorandum May 29, 1996.

Dillman, D., Jenkins, C., Martin, E. and DeMaio, T. 1996. "Cognitive and Motivational Properties of Three Proposed Decennial Census Forms," Report Prepared for the Bureau of the Census, Washington DC, Census Bureau Memorandum May 1996.

Gower, A.R. and Dibbs, R. 1989. "Cognitive Research: Designing a 'Respondent Friendly' Questionnaire for the 1991 Census." *Proceedings of the Bureau of the Census Fifth Annual Research Conference*, pp. 257-266.

Jenkins, C. and DeMaio, T. 1990. "Report on Cognitive Research on the Public and Private School Questionnaires for the Schools and Staffing Survey (SASS-3A and SASS 3B)." Internal Census Bureau Memorandum, July 1990.

Jenkins, C. 1992. "Questionnaire Research in the Schools and Staffing Survey: A Cognitive Approach." *Proceedings of the Section on Survey Methods Research*, American Statistical Association, August 1992.

Jenkins, C., Ciochetto, S., and Davis, W. 1992a. "Results of Cognitive Research on the Public School 1991-92 Field Test Questionnaire for the Schools and Staffing Survey." Internal Census Bureau Memorandum, June 15, 1992.

Jenkins, C., Ciochetto, S., and Davis, W. 1992b. "Recommendations for Changes to the Public School 1991-92 Field Test Questionnaire for the Schools and Staffing Survey (SASS-3A) Based on Cognitive Interviews." Internal Census Bureau Memorandum, September 24, 1992.

Jenkins, C. and Ciochetto, S. 1993. "Results of Cognitive Research on the Multiplicity Question from the 1991 Schools and Staffing Survey Student Records Questionnaire." A report submitted to the National Center for Education, Census Bureau Memorandum, February 10, 1993.

Jenkins, C.R. and Dillman, D.A. (In Press) "Towards a Theory of Self-administered Questionnaire Design" in L. Lyberg, P. Biemer, M. Collins, E. DeLeeuw, C. Dippo, N. Schwarz, and D. Trewing (Eds.), *Survey Measurement and Process Quality*, New York: Wiley-Interscience.

Krosnick, J.A. 1991. "Response Strategies for Coping with the Cognitive Demands of Attitude Measures in Surveys," *Applied Cognitive Psychology*, 5, pp. 213-236.

S. Sudman, N. Bradburn, and N. Schwarz. 1996. *Thinking About Answers*. San Francisco: Jossey-Bass Publishers.

Turner, C.F., Lessler, J.T., George, B.J., Hubbard, M.L. and Witt, M.B. 1992. "Effects of Mode of Administration and Wording on Data Quality" in C.F. Turner, J.T. Lessler, and J.C. Gfroerer, (eds), Survey Measurement of Drug Use Methodological Studies, Washington, DC: National Institute of Drug Abuse, U.S. Department of Health and Human Services, pp. 221-243.

Zuckerberg, A. and Hess, J. 1996. "Uncovering Adolescent Perceptions: Experiences Conducting Cognitive Interviews," paper presented at the Annual Meetings of the American Association for Public Opinion Research.

*This page intentionally left blank.*

Table 1. Number of teachers interviewed by school type and teaching experience.

School Type	New	Experienced	Alternative Certificate	Total
Public	5	5	5	15
Private	3	2	0	5
Total	8	7	5	20

Table 2. Percent of respondents who misexecuted the skip instruction by form, question, and various question features.

Form	Question	Skip Instruction Type	Response Options	Connective Symbol	Skip Instruction Location	Percent Misexecuted (N)
Private Teacher	1. Main Assignment	intermediate	many	bracketed arrow	right	30% (20)
Private Teacher	6. Main Assignment Year Before	modified conventional	many	bracketed arrow	right	35% (20)
Private Teacher	9. Public Teacher	salient	yes/no	numerous single arrows	beneath	0% (20)
Private Teacher	15d. Second Major	salient	yes/no	single arrow	beneath	10% (20)
Private Teacher	11a. Breaks in Service	intermediate	none/#	single arrow	right	25% (20)
Decennial Short Form	7. Household Elsewhere	conventional	yes/no	single dash	right	25% (55)

Table 3. The question sequence of three respondents who exhibited real difficulty understanding the skip instructions.

Respondent 13	Respondent 19	Respondent 21
1a	1a	1a
5	5	1b
2	1b	2
5 Had already done	2	5
4	5 Had already done	3a
5 Had already done	3a	3c
6	4	4
9a	3b	5 Had already done
10a	3c	6
10b	5 Had already done	7
7 Didn't answer because of note	6	8a-e
	9a	9a-c
	10a	10a
8a Didn't answer because of note	7 Didn't answer because of note	10b
11a		11a-d
11b	8a-e Didn't answer because of note	12
12		13
13		14
14	9a Had already done	15a-d
15a-d	9b	15f
15f	11a	
	12	
	13	
	14	
	15a-d	
	15f	

<p><b>1. How do you classify your MAIN assignment at THIS school (i.e., the activity at which you spend MOST of your time) during this school year?</b></p> <p><i>Mark (X) only one box.</i></p>	<div style="border: 1px solid black; padding: 2px; display: inline-block;">010</div> <div style="display: flex; flex-direction: column; gap: 10px;"> <div>1 <input type="checkbox"/> Regular full-time teacher — <i>Skip to item 5</i></div> <div>2 <input type="checkbox"/> Regular part-time teacher</div> <div>3 <input type="checkbox"/> Itinerant teacher (i.e., your assignment requires you to provide instruction at more than one school)</div> <div>4 <input type="checkbox"/> Long-term substitute (i.e., your assignment requires that you fill the role of a regular teacher on a long-term basis, but you are still considered a substitute)</div> <div>5 <input type="checkbox"/> Short-term substitute</div> <div>6 <input type="checkbox"/> Student teacher</div> <div>7 <input type="checkbox"/> Other professional staff (e.g., counselor, librarian, curriculum coordinator, social worker)</div> <div>8 <input type="checkbox"/> Administrator (e.g., principal, assistant principal, director, head)</div> <div>9 <input type="checkbox"/> Teacher's aide</div> <div>10 <input type="checkbox"/> Support staff (e.g., secretary)</div> </div> <div style="position: absolute; right: 10px; top: 180px; font-size: 2em;">}</div> <div style="position: absolute; right: 10px; top: 230px;"> <i>Continue with item 2</i> </div>
<p><b>IF YOU MARKED BOX 5, 6, 7, 8, 9, OR 10 ABOVE, PLEASE STOP NOW AND RETURN THIS QUESTIONNAIRE TO THE BUREAU OF THE CENSUS. THANK YOU FOR YOUR TIME.</b></p>	

Figure 1. Example of conventional skip instruction from the 1991-92 Field Test Public School Teacher Questionnaire.

**1a. How do you classify your main assignment at THIS school (i.e., the activity at which you spend most of your time) during this school year?**

Mark (X) only one box.

- 0020
- 1 ☐ Regular full-time teacher → **GO to item 5, page 5.**
  - 2 ☐ Regular part-time teacher
  - 3 ☐ Itinerant teacher (i.e., your assignment requires you to provide instruction at more than one school)
  - 4 ☐ Long-term substitute (i.e., your assignment requires that you fill the role of a regular teacher on a long-term basis, but you are still considered a substitute) } **GO to item 2, page 4.**
  - 5 ☐ Short-term substitute
  - 6 ☐ Student teacher
  - 7 ☐ Teacher aide
  - 8 ☐ Administrator (e.g., principal, assistant principal, director, school head)
  - 9 ☐ Library media specialist or librarian
  - 10 ☐ Other professional staff (e.g., counselor, curriculum coordinator, social worker)
  - 11 ☐ Support staff (e.g., secretary)
- ↓
- Please STOP now and return this questionnaire to the Bureau of the Census. Thank you for your time.**

**b. Do you TEACH any regularly scheduled classes at this school?**

*If you work as a library media specialist or librarian at this school, do not include classes in which you teach students how to use the library (e.g., library skills or library research).*

- 0025
- 1 ☐ Yes → **GO to item 2, page 4.**
  - 2 ☐ No → **Please STOP now and return this questionnaire to the Bureau of the Census. Thank you for your time.**

**6. What was your MAIN activity the year before you began teaching at the elementary or secondary level?**

Mark (X) only one box.

- 0060
- 1 ☐ Student at a college or university
  - 2 ☐ Caring for family members
  - 3 ☐ Working as a substitute teacher
  - 4 ☐ Teaching in a preschool
  - 5 ☐ Teaching at a college or university
  - 6 ☐ Working in a position in the field of education, but not as a teacher → **Continue with item 7.**
  - 7 ☐ Working in an occupation outside the field of education → **GO to item 8a, page 6.**
  - 8 ☐ Military service
  - 9 ☐ Unemployed and seeking work
  - 10 ☐ Retired from another job
- **GO to item 9a, page 7.**

Figure 2. Examples of questions with a relatively complex structure from the 1993-94 Private School Teacher Questionnaire. Question 1 uses an intermediate skip instruction. Question 6 uses a modified conventional skip instruction.



**9a. Have you ever worked as an elementary or secondary teacher in a PUBLIC SCHOOL?**

0090

- 1 ☐ Yes  
2 ☐ No

**GO to item 10a.****b. How many years did you teach FULL-TIME in public schools?***Record whole years, not fractions or months. If less than 4 months, mark "None."*

0095

0 ☐ None or \_\_\_\_\_ Years**c. How many years did you teach PART-TIME in public schools?***Record whole years, not fractions or months. If less than 4 months, mark "None."*

0100

0 ☐ None or \_\_\_\_\_ Years**d. Did you have a second major field of study?**

0185

- 1 ☐ Yes  
2 ☐ No

**GO to item 15f.****e. What was your second major field of study?***Record the two-digit field code from the list on page 10 and the field name.*

0190

--	--


Code

Second major field

Figure 3. Examples of questions with a relatively simple structure from the 1993-94 Private School Teacher Questionnaire. Both questions use the salient skip instruction.

**11a. Since you began teaching, how many times have you had a break in service of one year or more?**

0115      0 ☐ None → **GO to item 12, page 9.**  
                  OR

0120       \_\_\_\_\_ Breaks in service

**b. Were any of these breaks due to a reduction-in-force or a lay-off?**

0125      1 ☐ Yes – **How many?** → 0130 \_\_\_\_\_  
                  2 ☐ No

Figure 4.      An example of a question containing a combination of complex and simple question features.

7 Does this person have another residence?  
☐ Yes ☐ No – *Go to next person.*

8 How much time does this person spend at the other residence?  
☐ Half of the time or less than half of the time  
☐ More than half of the time  
*If more than half the time, enter the address below.*

House/Building Number  
| | | | | | | |

Street Name  
| | | | | | | | | | | | | |

Apartment Number  
| | | | |

City  
| | | | | | | | | | | | | |

State  
| | | | | | | | | |

Zip Code *Include + 4 if known.*  
| | | | | - | | | |

Figure 5. An example of a question from the decennial short form that employed a skip instruction.

### **Listing of NCES Working Papers to Date**

Please contact Ruth R. Harris at (202) 219-1831  
if you are interested in any of the following papers

<u>Number</u>	<u>Title</u>	<u>Contact</u>
94-01 (July)	Schools and Staffing Survey (SASS) Papers Presented at Meetings of the American Statistical Association	Dan Kasprzyk
94-02 (July)	Generalized Variance Estimate for Schools and Staffing Survey (SASS)	Dan Kasprzyk
94-03 (July)	1991 Schools and Staffing Survey (SASS) Reinterview Response Variance Report	Dan Kasprzyk
94-04 (July)	The Accuracy of Teachers' Self-reports on their Postsecondary Education: Teacher Transcript Study, Schools and Staffing Survey	Dan Kasprzyk
94-05 (July)	Cost-of-Education Differentials Across the States	William Fowler
94-06 (July)	Six Papers on Teachers from the 1990-91 Schools and Staffing Survey and Other Related Surveys	Dan Kasprzyk
94-07 (Nov.)	Data Comparability and Public Policy: New Interest in Public Library Data Papers Presented at Meetings of the American Statistical Association	Carrol Kindel
95-01 (Jan.)	Schools and Staffing Survey: 1994 Papers Presented at the 1994 Meeting of the American Statistical Association	Dan Kasprzyk
95-02 (Jan.)	QED Estimates of the 1990-91 Schools and Staffing Survey: Deriving and Comparing QED School Estimates with CCD Estimates	Dan Kasprzyk
95-03 (Jan.)	Schools and Staffing Survey: 1990-91 SASS Cross-Questionnaire Analysis	Dan Kasprzyk
95-04 (Jan.)	National Education Longitudinal Study of 1988: Second Follow-up Questionnaire Content Areas and Research Issues	Jeffrey Owings
95-05 (Jan.)	National Education Longitudinal Study of 1988: Conducting Trend Analyses of NLS-72, HS&B, and NELS:88 Seniors	Jeffrey Owings

### Listing of NCES Working Papers to Date--Continued

<u>Number</u>	<u>Title</u>	<u>Contact</u>
95-06 (Jan.)	National Education Longitudinal Study of 1988: Conducting Cross-Cohort Comparisons Using HS&B, NAEP, and NELS:88 Academic Transcript Data	Jeffrey Owings
95-07 (Jan.)	National Education Longitudinal Study of 1988: Conducting Trend Analyses HS&B and NELS:88 Sophomore Cohort Dropouts	Jeffrey Owings
95-08 (Feb.)	CCD Adjustment to the 1990-91 SASS: A Comparison of Estimates	Dan Kasprzyk
95-09 (Feb.)	The Results of the 1993 Teacher List Validation Study (TLVS)	Dan Kasprzyk
95-10 (Feb.)	The Results of the 1991-92 Teacher Follow-up Survey (TFS) Reinterview and Extensive Reconciliation	Dan Kasprzyk
95-11 (Mar.)	Measuring Instruction, Curriculum Content, and Instructional Resources: The Status of Recent Work	Sharon Bobbitt & John Ralph
95-12 (Mar.)	Rural Education Data User's Guide	Samuel Peng
95-13 (Mar.)	Assessing Students with Disabilities and Limited English Proficiency	James Houser
95-14 (Mar.)	Empirical Evaluation of Social, Psychological, & Educational Construct Variables Used in NCES Surveys	Samuel Peng
95-15 (Apr.)	Classroom Instructional Processes: A Review of Existing Measurement Approaches and Their Applicability for the Teacher Follow-up Survey	Sharon Bobbitt
95-16 (Apr.)	Intersurvey Consistency in NCES Private School Surveys	Steven Kaufman
95-17 (May)	Estimates of Expenditures for Private K-12 Schools	Stephen Broughman
95-18 (Nov.)	An Agenda for Research on Teachers and Schools: Revisiting NCES' Schools and Staffing Survey	Dan Kasprzyk
96-01 (Jan.)	Methodological Issues in the Study of Teachers' Careers: Critical Features of a Truly Longitudinal Study	Dan Kasprzyk

### Listing of NCES Working Papers to Date--Continued

<u>Number</u>	<u>Title</u>	<u>Contact</u>
96-02 (Feb.)	Schools and Staffing Survey (SASS): 1995 Selected papers presented at the 1995 Meeting of the American Statistical Association	Dan Kasprzyk
96-03 (Feb.)	National Education Longitudinal Study of 1988 (NELS:88) Research Framework and Issues	Jeffrey Owings
96-04 (Feb.)	Census Mapping Project/School District Data Book	Tai Phan
96-05 (Feb.)	Cognitive Research on the Teacher Listing Form for the Schools and Staffing Survey	Dan Kasprzyk
96-06 (Mar.)	The Schools and Staffing Survey (SASS) for 1998-99: Design Recommendations to Inform Broad Education Policy	Dan Kasprzyk
96-07 (Mar.)	Should SASS Measure Instructional Processes and Teacher Effectiveness?	Dan Kasprzyk
96-08 (Apr.)	How Accurate are Teacher Judgments of Students' Academic Performance?	Jerry West
96-09 (Apr.)	Making Data Relevant for Policy Discussions: Redesigning the School Administrator Questionnaire for the 1998-99 SASS	Dan Kasprzyk
96-10 (Apr.)	1998-99 Schools and Staffing Survey: Issues Related to Survey Depth	Dan Kasprzyk
96-11 (June)	Towards an Organizational Database on America's Schools: A Proposal for the Future of SASS, with comments on School Reform, Governance, and Finance	Dan Kasprzyk
96-12 (June)	Predictors of Retention, Transfer, and Attrition of Special and General Education Teachers: Data from the 1989 Teacher Followup Survey	Dan Kasprzyk
96-13 (June)	Estimation of Response Bias in the NHES:95 Adult Education Survey	Steven Kaufman
96-14 (June)	The 1995 National Household Education Survey: Reinterview Results for the Adult Education Component	Steven Kaufman

### Listing of NCES Working Papers to Date--Continued

<u>Number</u>	<u>Title</u>	<u>Contact</u>
96-15 (June)	Nested Structures: District-Level Data in the Schools and Staffing Survey	Dan Kasprzyk
96-16 (June)	Strategies for Collecting Finance Data from Private Schools	Stephen Broughman
96-17 (July)	National Postsecondary Student Aid Study: 1996 Field Test Methodology Report	Andrew G. Malizio
96-18 (Aug.)	Assessment of Social Competence, Adaptive Behaviors, and Approaches to Learning with Young Children	Jerry West
96-19 (Oct.)	Assessment and Analysis of School-Level Expenditures	William Fowler
96-20 (Oct.)	1991 National Household Education Survey (NHES:91) Questionnaires: Screener, Early Childhood Education, and Adult Education	Kathryn Chandler
96-21 (Oct.)	1993 National Household Education Survey (NHES:93) Questionnaires: Screener, School Readiness, and School Safety and Discipline	Kathryn Chandler
96-22 (Oct.)	1995 National Household Education Survey (NHES:95) Questionnaires: Screener, Early Childhood Program Participation, and Adult Education	Kathryn Chandler
96-23 (Oct.)	Linking Student Data to SASS: Why, When, How	Dan Kasprzyk
96-24 (Oct.)	National Assessments of Teacher Quality	Dan Kasprzyk
96-25 (Oct.)	Measures of Inservice Professional Development: Suggested Items for the 1998-1999 Schools and Staffing Survey	Dan Kasprzyk
96-26 (Nov.)	Improving the Coverage of Private Elementary-Secondary Schools	Steven Kaufman
96-27 (Nov.)	Intersurvey Consistency in NCES Private School Surveys for 1993-94	Steven Kaufman

### Listing of NCES Working Papers to Date--Continued

<u>Number</u>	<u>Title</u>	<u>Contact</u>
96-28 (Nov.)	Student Learning, Teaching Quality, and Professional Development: Theoretical Linkages, Current Measurement, and Recommendations for Future Data Collection	Mary Rollefson
96-29 (Nov.)	Undercoverage Bias in Estimates of Characteristics of Adults and 0- to 2-Year-Olds in the 1995 National Household Education Survey (NHES:95)	Kathryn Chandler
96-30 (Dec.)	Comparison of Estimates from the 1995 National Household Education Survey (NHES:95)	Kathryn Chandler
97-01 (Feb.)	Selected Papers on Education Surveys: Papers Presented at the 1996 Meeting of the American Statistical Association	Dan Kasprzyk
97-02 (Feb.)	Telephone Coverage Bias and Recorded Interviews in the 1993 National Household Education Survey (NHES:93)	Kathryn Chandler
97-03 (Feb.)	1991 and 1995 National Household Education Survey Questionnaires: NHES:91 Screener, NHES:91 Adult Education, NHES:95 Basic Screener, and NHES:95 Adult Education	Kathryn Chandler
97-04 (Feb.)	Design, Data Collection, Monitoring, Interview Administration Time, and Data Editing in the 1993 National Household Education Survey (NHES:93)	Kathryn Chandler
97-05 (Feb.)	Unit and Item Response, Weighting, and Imputation Procedures in the 1993 National Household Education Survey (NHES:93)	Kathryn Chandler
97-06 (Feb.)	Unit and Item Response, Weighting, and Imputation Procedures in the 1995 National Household Education Survey (NHES:95)	Kathryn Chandler
97-07 (Mar.)	The Determinants of Per-Pupil Expenditures in Private Elementary and Secondary Schools: An Exploratory Analysis	Stephen Broughman
97-08 (Mar.)	Design, Data Collection, Interview Timing, and Data Editing in the 1995 National Household Education Survey	Kathryn Chandler



### **Listing of NCES Working Papers to Date--Continued**

<u>Number</u>	<u>Title</u>	<u>Contact</u>
97-09 (Apr.)	Status of Data on Crime and Violence in Schools: Final Report	Lee Hoffman
97-10 (Apr.)	Report of Cognitive Research on the Public and Private School Teacher Questionnaires for the Schools and Staffing Survey 1993-94 School Year	Dan Kasprzyk